



Micronas 6437  
09/977,484

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**APPLICANT:** Ralf Janke **GROUP:** 2857  
**SERIAL NO:** 09/977,484 **EXAMINER:** Hal D. Wachsman  
**FILED:** October 15, 2001  
**FOR:** SENSOR SYSTEM WITH VARIABLE  
SENSOR-SIGNAL PROCESSING

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**APPEAL BRIEF**

This appeal is in response to the Official Action dated September 14, 2005, which has been made final. A check including the fee of \$500 pursuant to 37 C.F.R. §1.17(c) is enclosed herewith.

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I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date below, with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*Patrick J. O'Shea*  
Patrick J. O'Shea

*2/14/2006*  
Date

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I. REAL PARTY OF INTEREST

The real party of interest is Micronas GmbH of Freiburg Germany.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF CLAIMS

On December 14, 2005 the appellant appealed from the final rejection of claims 1-3 and 6-9 under 35 U.S.C. §103. Claims 1-3 and 6-9, which are set forth in Appendix A attached hereto, are all the remaining claims in this application. The rejection of claims 1-3 and 6-9 is being appealed.

IV. STATUS OF AMENDMENTS

An Amendment After Final was filed December 14, 2005 along with the Notice of Appeal. The proposed claim amendments set forth in the Amendment After final address the 37 C.F.R. §1.75(c) objections to the claims.

The Advisory Action Before the Filing of an Appeal Brief dated December 23, 2005 indicated that the minor claim amendments set forth in the Amendment After final had not been entered and would not be entered upon the filing of an Appeal Brief. The undersigned respectfully requests entry of the amendments since they merely go to matters of definiteness and not to issues of patentability over the prior art rejections of record. If such insignificant

amendments are denied entry, then it is submitted that there are no amendments that the Examiner is ever willing to enter after final.

Noticeably missing from the Advisory Action is any reasoned statement or rationale regarding why the amendments have not been entered. The comments on the continuation of item 3 page of the Advisory Action do not address the Examiner's unsupported decision to deny entry of the simple amendments set forth in the Amendment After Final. Accordingly, entry of the Amendment After Final is requested, and if such entry is still denied then a reasoned statement from the Examiner is requested with supporting rationale for denying entry of the Amendment After Final.

## V. SUMMARY OF CLAIMED SUBJECT MATTER

The invention relates to a system for radio reception and telephoning in a motor vehicle.

Claim 1 recites a sensor system with variable sensor-signal processing. The various elements recited in claim 1 are discussed in the specification in at least the following locations, amongst others:

FEATURES OF CLAIM 1	SPECIFICATION
A sensor system with variable sensor-signal processing, comprising:	Page 7, line 7
a integrated circuit sensor unit that includes	Page 9, line 7
(i) a sensor element that provides a sensed signal in response to a measurement variable, and	Page 10, lines 8-12
(ii) a memory device that stores adjustable coefficient values; and	Page 9, line 21-Page 10, line 2; Page 11, lines 5-7
(iii) a sensor signal processing unit that processes said sensed signal using adjustable coefficient values to provide a sensor output signal on a output line indicative of the measurement variable,	Page 9, line 21-Page 11, line 22
wherein said integrated circuit sensor unit receives updated adjustable coefficient values via said output line and stores said updated adjustable coefficient values in said memory device	Page 14, line 22-Page 16, line 13

Claim 3 recites a sensor system with variable sensor-signal processing. The various elements recited in claim 3 are discussed in the specification in at least the following locations, amongst others:

FEATURES OF CLAIM 3	SPECIFICATION
A sensor system with variable sensor-signal processing, comprising:	Page 7, line 7
a integrated circuit sensor unit that receives power via a first line and includes	Page 9, line 7
(i) a sensor element that provides a sensed signal in response to a measurement variable, and	Page 10, lines 8-12
(ii) a memory device that stores adjustable coefficient values; and	Page 9, line 21-Page 10, line 2; Page 11, lines 5-7
(iii) a sensor signal processing unit that processes said sensed signal using adjustable coefficient values to provide a sensor output signal on a second line indicative of the measurement variable,	Page 9, line 21-Page 11, line 22
wherein said integrated circuit sensor unit receives updated adjustable coefficient values via said first line and stores said updated adjustable coefficient values in said memory device.	Page 14, line 22-Page 16, line 13

## VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1-2 are obvious in view of the combined subject matter disclosed in U.S. Patent 5,150,301 to Kashiwabara (hereinafter “Kashiwabara”) in view of the alleged admission regarding the prior art (“APA”).

Whether claim 3 is obvious in view of the combined subject matter disclosed in Kashiwabara, APA and U.S. Patent 5,006,841 to Vines et al (hereinafter “Vines”).

Whether claims 6-8 are obvious in view of the combined subject matter disclosed in Kashiwabara, APA and U.S. Patent 6,424,143 to Blossfeld (hereinafter “Blossfeld”).

Whether claim 9 is obvious in view of the combined subject matter disclosed in Kashiwabara, APA, Vines and Blossfeld.

## VII. ARGUMENT

### CLAIMS 1-2

Claim 1 recites a sensor system with variable sensor-signal processing. The sensor system includes a integrated circuit sensor unit that includes:

- “(i) a sensor element that provides a sensed signal in response to a measurement variable, and
  - (ii) a memory device that stores adjustable coefficient values; and
  - (iii) a sensor signal processing unit that processes said sensed signal using adjustable coefficient values to provide a sensor output signal on a output line indicative of the measurement variable,
- wherein said integrated circuit sensor unit receives updated adjustable coefficient values via said output line and stores said updated adjustable coefficient values in said memory device.” (emphasis added, cl. 1).

The integrated circuit sensor unit of claim 1 includes a sensor element that provides a sensed signal and a sensor signal processing unit that receives and processes the sensed signal using the adjustable coefficient values stored in the memory device to provide a sensor output signal that is indicative of the measurement variable sensed by the sensor element. That is, the sensor system provides the sensor output signal that is indicative of the measurement variable sensed by the sensor element.

The Official Action contends “*Kishiwabara et al. (Abstract, figure 1, col. 10, lines 16, 17) disclose ‘a sensor signal processing unit that processes said sensor signal ... to provide a sensor output signal on an output line indicative of the measurement variable’.*” (Official Action, pg. 3). It is respectfully submitted that this contention is based upon an improper reading of Kishiwabara. Specifically, no sensor (i.e., 2, 22, 28, 30 or 32) in Kishiwabara discloses

providing a sensed signal that is processed within the integrated circuit sensor unit using coefficient values stored within a memory device, also located within the integrated circuit sensor unit, to provide a sensor output signal that is indicative of the measurement variable. Kishiwabara does not disclose such processing within any of the sensor units. A fair and proper reading of Kishiwabara reveals that this prior art reference simply discloses scheduling a fuel injection amount  $T_i$  in response to a number of sensed signals. (see col. 5, line 32 – col. 6, line 10). In addition, none of the other prior art references, including Kishiwabara or the admissions in the Background section of the present application, discloses nor suggests either alone or in combination a sensor that processes its sensed signal as set forth in claim 1.

The system of Kishiwabara neither discloses nor suggests that one of the sensors disclosed therein includes a sensor element that provides a sensed signal, which is processed within the sensor unit with coefficient values to provide a sensor output signal indicative of the measurement variable. Kishiwabara merely discloses a system for scheduling a fuel injection amount  $T_i$  based upon a number of sensed signals, including air flow, coolant temperature, et cetera. (see col. 5, line 32 – col. 6, line 10). The fuel injection amount  $T_i$  is of course not a signal indicative of sensed parameter (i.e., a measurement variable).

The Official Action contends Kishiwabara discloses each of the features of the claimed invention with the exception of an integrated circuit sensor unit. (See Official Action, pg. 3). However, as set forth above this contention is based upon an impermissibly broad reading of Kishiwabara.

Accordingly, it is respectfully submitted that assuming for the moment, without admitting, that the prior art references are properly combinable as set forth in the Official Action, the resultant combination is still incapable of rendering obvious the claimed invention since it



fails to disclose at least the feature of “*a sensor signal processing unit that processes said sensed signal using adjustable coefficient values to provide a sensor output signal on a output line indicative of the measurement variable*”. (cl. 1).

### CLAIM 3

It is respectfully submitted that claim 3 is patentable for at least all the same reasons as claim 1. Claim 3 recites a sensor system with variable sensor-signal processing. The sensor system includes:

“a integrated circuit sensor unit that receives power via a first line and includes

- (i) a sensor element that provides a sensed signal in response to a measurement variable, and
- (ii) a memory device that stores adjustable coefficient values; and
- (iii) a sensor signal processing unit that processes said sensed signal using adjustable coefficient values to provide a sensor output signal on a second line indicative of the measurement variable,

wherein said integrated circuit sensor unit receives updated adjustable coefficient values via said first line and stores said updated adjustable coefficient values in said memory device.” (emphasis added, cl. 3).

The Official Action contends “*Kishiwabara et al. (Abstract, figure 1, col. 10, lines 16, 17) disclose ‘a sensor signal processing unit that processes said sensor signal ... to provide a sensor output signal on a second line indicative of the measurement variable’.*” (Official Action, pg. 4).

It is respectfully submitted that this contention is based upon an improper reading of Kishiwabara. Specifically, no sensor (i.e., 2, 22, 28, 30 or 32) in Kishiwabara discloses providing a sensed signal that is processed within the sensor unit using coefficient values stored within a memory device, also located within the sensor unit, to provide a sensor output signal that is indicative of the measurement variable. Kishiwabara does not disclose such processing

within any of the sensor units. A fair and proper reading of Kishiwabara reveals that this prior art reference simply discloses scheduling a fuel injection amount  $T_i$  in response to a number of sensed signals. (see col. 5, line 32 – col. 6, line 10). In addition, none of the other prior art references discloses nor suggests a sensor that processes its sensed signal as set forth in claim 3.

The system of Kishiwabara neither discloses nor suggests that one of the sensors disclosed therein includes a sensor element that provides a sensed signal, which is processed within the sensor unit with coefficient values to provide a sensor output signal indicative of the measurement variable. Kishiwabara merely discloses a system for scheduling a fuel injection amount  $T_i$  based upon a number of sensed signals, including air flow, coolant temperature, et cetera. (see col. 5, line 32 – col. 6, line 10). The fuel injection amount  $T_i$  is of course not a signal indicative of sensed parameter (i.e., a measurement variable).

The Official Action contends Kishiwabara discloses each of the features of the claimed invention with the exception of an integrated circuit sensor unit. (See Official Action, pg. 4). However, as set forth above this contention is based upon an impermissibly broad reading of Kishiwabara.

Accordingly, it is respectfully submitted that assuming for the moment, without admitting, that the prior art references are properly combinable as set forth in the Official Action, the resultant combination is still incapable of rendering obvious the claimed invention since it fails to disclose at least the feature of “*a sensor signal processing unit that processes said sensed signal using adjustable coefficient values to provide a sensor output signal on a second line indicative of the measurement variable,*”. (cl. 3).

**CLAIMS 6-8**

It is respectfully submitted that this rejection is moot since independent claim 3 is patentable for at least all the reasons set forth above.

**CLAIM 9**

It is respectfully submitted that this rejection is moot since independent claim 3 is patentable for at least all the reasons set forth above.

**CONCLUSION**

For all the foregoing reasons, we submit that the rejection of claims 1-3 and 6-9 is erroneous and reversal thereof is respectfully requested.

If there are any additional fees due in connection with the filing of this appeal brief, please charge them to our Deposit Account 50-3381. If a fee is required for any extension of time under 37 C.F.R. §1.136 not accounted for above, such an extension is requested and the fee should be charged to the above Deposit Account.

Respectfully submitted,

A handwritten signature in cursive script, reading "Patrick J. O'Shea", is written over a horizontal line.

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## CLAIMS APPENDIX

1.(Previously Presented) A sensor system with variable sensor-signal processing, comprising:

a integrated circuit sensor unit that includes

(i) a sensor element that provides a sensed signal in response to a measurement variable, and

(ii) a memory device that stores adjustable coefficient values; and

(iii) a sensor signal processing unit that processes said sensed signal using adjustable coefficient values to provide a sensor output signal on a output line indicative of the measurement variable,

wherein said integrated circuit sensor unit receives updated adjustable coefficient values via said output line and stores said updated adjustable coefficient values in said memory device.

2.(Previously Presented) The sensor system of claim 1, further comprising an analytical unit that receives said sensor output signal and provides said updated coefficient values.

3.(Previously Presented) A sensor system with variable sensor-signal processing, comprising:

a integrated circuit sensor unit that receives power via a first line and includes

(i) a sensor element that provides a sensed signal in response to a measurement variable, and

(ii) a memory device that stores adjustable coefficient values; and

(iii) a sensor signal processing unit that processes said sensed signal using adjustable coefficient values to provide a sensor output signal on a second line indicative of the measurement variable,

wherein said integrated circuit sensor unit receives updated adjustable coefficient values via said first line and stores said updated adjustable coefficient values in said memory device.

4.(Cancelled)

5.(Cancelled)

6.(Previously Presented) The sensor system of claim 2, wherein said adjustable coefficient values can be transmitted by the change of an output load ( $I_{load}$ ) on said output line between said sensor signal processing unit and said analytical unit.

7.(Previously Presented) The sensor system of claim 6 wherein the output load ( $I_{load}$ ) is continuously variable.

8.(Previously Presented) The sensor system of claim 6, wherein the output load ( $I_{load}$ ) is stepwise variable.

9.(Previously Presented) The sensor system of claim 3, wherein said updated adjustable coefficient values can be transmitted to said sensor unit by changing a supply voltage ( $U_s$ ) on said first line for said sensor unit.

10.(Cancelled)

11.(Cancelled)

12.(Cancelled)

13.(Cancelled)

14.(Cancelled)

15.(Cancelled)

16.(Cancelled)

17.(Cancelled)

18.(Cancelled)

19.(Cancelled)

20.(Cancelled)